



The Advanced Technology Program Funding High Risk R & D

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NIST Advanced Technology Program

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Gaithersburg, Md.



Boulder, Colo.

***Develop and promote
measurement, standards,
and technology to enhance
productivity, facilitate
trade, and improve quality
of life.***

*To **accelerate** the development of
innovative technologies for
broad national benefit through
partnerships with the private sector.*



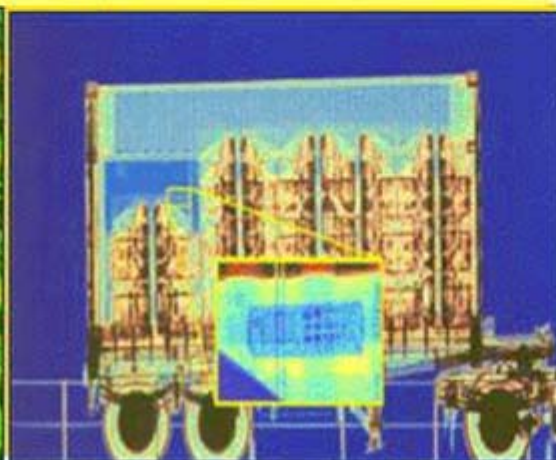
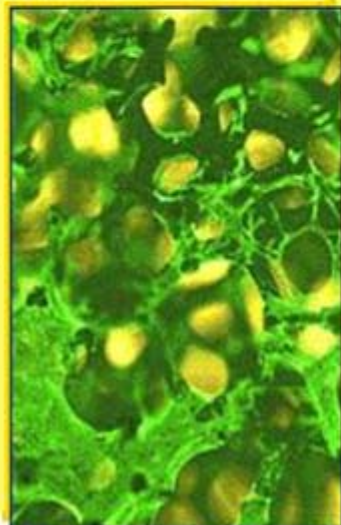
The Difference ATP Makes

With ATP, R&D is:

- ☐ Higher risk
- ☐ Creating leap-frog technologies
- ☐ Leading to multiple applications
- ☐ Expanding company and national competencies
- ☐ Broadly diffused

ATP

Exciting New Technologies ...



***Bridging
the Gap
Between the Laboratory***

- **A total of 6,924 proposals submitted to 44 competitions, requesting \$14,708 M from ATP**
- **218 joint ventures and 550 single companies**
- **768 projects awarded with 1,511 participants and an equal number of subcontractors**
- **Over 170 universities participate**
- **Over 30 national laboratories participate**

Today's Investments ...

***Electronics and
Photonics (\$576
M)***

***Biotechnology
(\$449 M)***

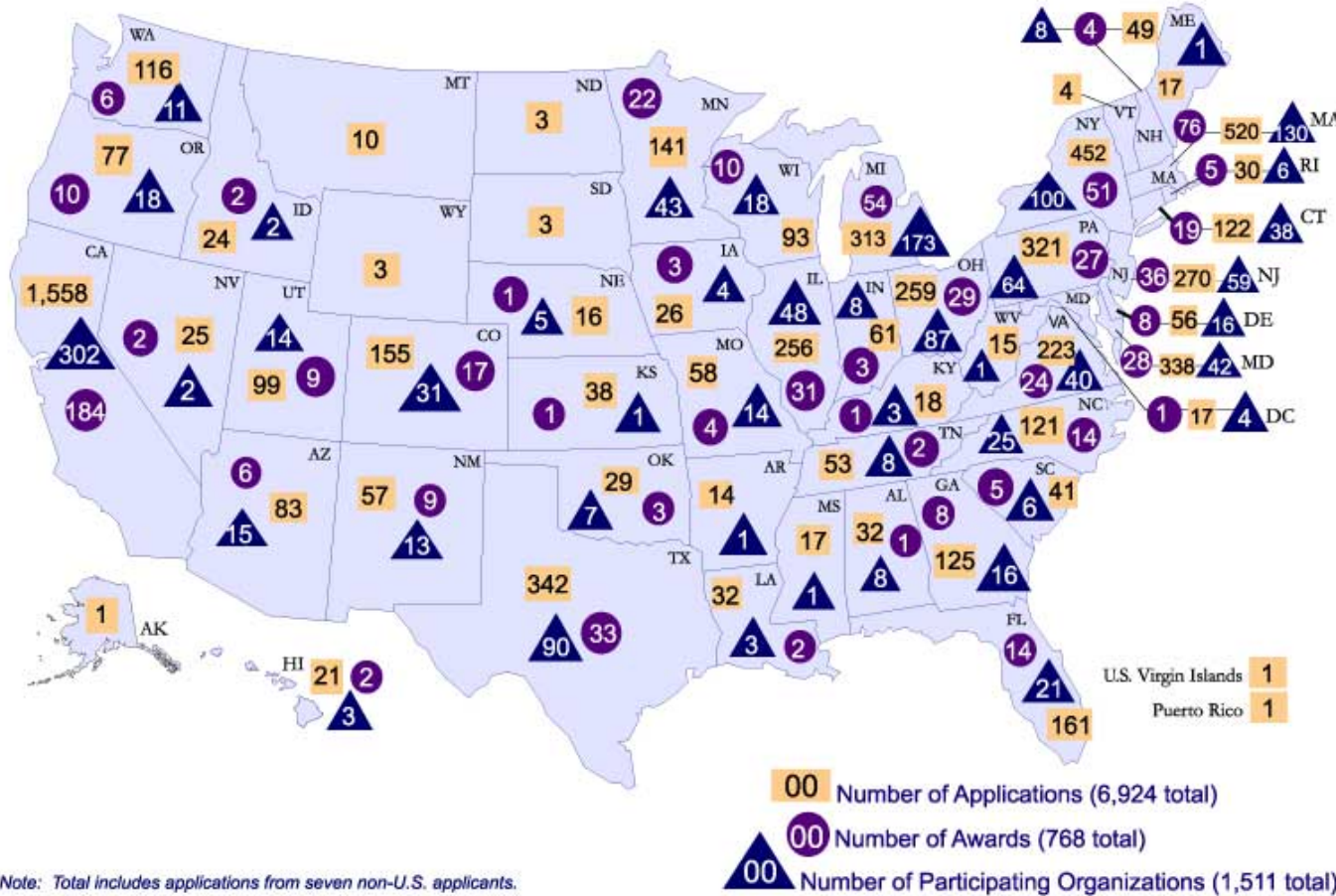
***Manufacturing
(\$252 M)***

***Information
Technology (\$504
M)***

***Chemistry and
Materials (\$488 M)***

Participation in the ATP ...

ATP Applications, Awards, & Participants by State* (1990-September 2004)



* Geographic location is not a consideration in project selection. The ATP has an active outreach program that seeks to increase awareness across the entire nation of the program's opportunities for small, medium, and large businesses and other organizations. To date, ATP has received applications from organizations based in every state, and has provided funding to participating organizations located in 49 states, and the District of Columbia.

Two Ways to Apply ... as a Single Applicant

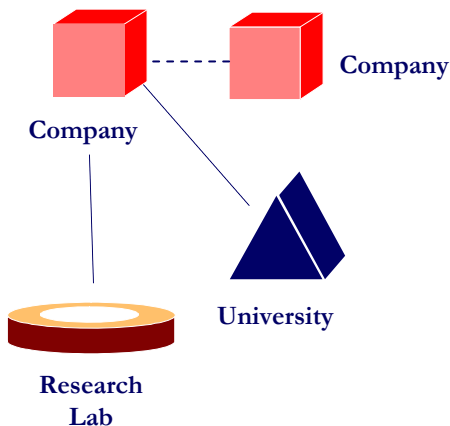
Single Company:

Alone



Company

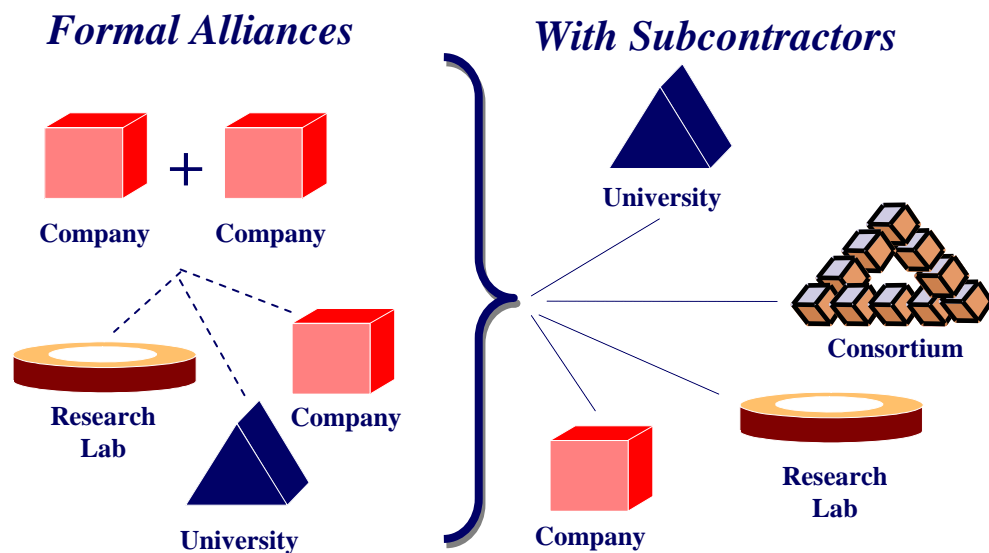
With Subcontractors



- For-profit company
- 3-year time limit
- \$2 M award cap
- Company pays indirect costs
- Large companies cost share at least 60% of total project cost

Two Ways to Apply ... as a Joint Venture

Joint Venture:



- At least 2 for-profit companies
- 5-year time limit
- No limit on award amount (other than availability of funds)
- Industry share >50% total cost

❑ *ATP encourages teaming arrangements*

❑ *Most projects involve alliances*

Two Major Criteria

- **Scientific and Technological Merit (50%)**
 - Technical innovation
 - High technical risk with evidence of feasibility
 - Detailed technical plan
- **Potential for Broad-Based Economic Benefits (50%)**
 - National economic benefits
 - Need for ATP funding
 - Pathway to economic benefits

Crosscutting Areas of National Interest

As always, ATP is soliciting proposals in all areas of technology, including four *Crosscutting Areas of National Interest*

- **Based on national needs embodied within**
 - Industry roadmaps
 - National Academy of Sciences and other reports
 - Initiatives such as American Competitiveness, National Nanotechnology and Advanced Energy
 - NIST's U.S. Measurement System (USMS) study
- **Preserves industry-led approach**

- **AREA 1: Technologies for Advanced and Complex Systems**

Benefit area examples include (not exclusive list):

- Life Science System Discovery Tools & Methods
- Ocean and Lake System Management, Monitoring and Cultivation Technologies
- Information Systems
- Energy System Technologies
- Environmental System Technologies

- **AREA 2: Challenges in Advanced Materials and Devices**

Benefit area examples include (not exclusive list):

- Energy and Power Technologies
- Electronics and Photonics
- Microsystem Devices
- Broadband Networks and Communications
- Healthcare Diagnostics and Assays Composite materials
- Recycling materials

- **AREA 3: 21st Century Manufacturing**

Benefit area examples include (not exclusive list):

- Computer and Electronic or Photonic Products
- Motor Vehicles and Mechanical Products
- Biomanufacturing/Bioprocessing
- Bulk Materials
- Chemical or Material Processing
- Manufacturing Systems and Controls
- Energy
- Food Processing

- **AREA 4: Nanotechnology**

Benefit area examples include (not exclusive list):

- Life Sciences, Biotechnology, Healthcare
- Electronics and Photonics
- Information Technology
- Energy Systems
- Advanced Materials

Summary of Key Attributes

The ATP

- Focuses on the civilian sector
- Funds enabling technologies with high spillover potential
- Funds proposals that aim to overcome difficult research challenges
- Encourages company-university-laboratory collaboration
- Seeks to unlock the technical creativity that drives competitiveness
- Recognizes that industry understands what's important for its future

- ATP has received a budget of \$79M for FY 2007 from Congress
- ATP will hold a competition for FY 2007
- Proposals Due 3:00 PM EDT, May 21, 2007
- www.atp.nist.gov for details